## WEST

# Freeform Search

Database:	US Patents Full-Text Database US Pre-Grant Publication Full-Text Database JPO Abstracts Database EPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins
Term:	<b>△</b>
Display:	Documents in Display Format: TI Starting with Number 1
Generate:	○ Hit List ● Hit Count ○ Side by Side ○ Image
	Search Clear Help Logout Interrupt  Main Menu Show S Numbers Edit S Numbers Preferences Cases
	Search History

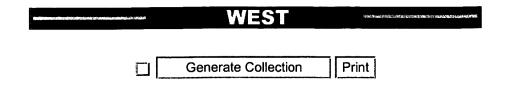
DATE: Saturday, April 19, 2003 Printable Copy Create Case

Set Name Query side by side		Hit Count Set Name result set	
DB=U	SPT; PLUR=YES; OP=ADJ		
<u>L26</u>	125 same server	9	<u>L26</u>
<u>L25</u>	(plurality or multiple) with simulat\$6 with thread	39	<u>L25</u>
<u>L24</u>	dynamic\$6 with simulat\$6 with thread	0	<u>L24</u>
<u>L23</u>	dynamic\$6 near5 simulat\$6 near5 thread	0	<u>L23</u>
<u>L22</u>	dynamic\$4 near5 simulat\$6 near5 thread	0	<u>L22</u>
<u>L21</u>	dynamically near5 simulat\$4 thread	0	<u>L21</u>
<u>L20</u>	creat\$4 near5 dynamically near5 simulat\$4 thread	0	<u>L20</u>
DB=U	SPT,PGPB; PLUR=YES; OP=ADJ		
<u>L19</u>	(5410698  5691973  5790790  5793415  5809145  5809248  5835724  5872963  5918228  5928323  5961584  5991792  6012090  6052711  6058460  6112196  6182109  6418458)![pn]	18	<u>L19</u>
DB=U	SPT; PLUR=YES; OP=ADJ		
<u>L18</u>	115 same server	2	<u>L18</u>
<u>L17</u>	L16 same server	0	<u>L17</u>
<u>L16</u>	(multiple or plurality) near3 thread near5 (state information or suspend\$3 or interrupt\$3)	160	<u>L16</u>
<u>L15</u>	plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	222	<u>L15</u>
<u>L14</u>	simulat\$6 same plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	0	<u>L14</u>
<u>L13</u>	simulat\$6 near5 plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	0	<u>L13</u>
<u>L12</u>	maintain\$3 near5 state near5 thread near5 (suspend\$3 or interrup\$3)	1	<u>L12</u>
<u>L11</u>	L10 same 13	0	<u>L11</u>
<u>L10</u>	maintain\$3 same thread same (suspend\$3 or interrup\$3)	446	<u>L10</u>
<u>L9</u>	13 same state information	3	<u>L9</u>
<u>L8</u>	wafl	22	<u>L8</u>
<u>L7</u>	wafl file near5 thread	0	<u>L7</u>
<u>L6</u>	L4 and 13	2	<u>L6</u>
<u>L5</u>	L4 same 13	0	<u>L5</u>
<u>L4</u>	maintain\$3 near5 state information	691	<u>L4</u>
<u>L3</u>	simulat\$6 near5 thread	216	<u>L3</u>
<u>L2</u>	L1 and simulat\$6 near5 thread	0	<u>L2</u>
<u>L1</u>	4742447	77	<u>L1</u>

## END OF SEARCH HISTORY

Set Name Query side by side		Hit Count S	et Name result set	
DB=U	DB=USPT; PLUR=YES; OP=ADJ			
<u>L28</u>	127 same (interrupt\$6 or suspend)	9	<u>L28</u>	
<u>L27</u>	(plurality or multiple) near3 thread near5 schedul\$3	73	<u>L27</u>	
<u>L26</u>	125 same server	9	<u>L26</u>	
<u>L25</u>	(plurality or multiple) with simulat\$6 with thread	39	<u>L25</u>	
<u>L24</u>	dynamic\$6 with simulat\$6 with thread	0	<u>L24</u>	
<u>L23</u>	dynamic\$6 near5 simulat\$6 near5 thread	0	<u>L23</u>	
<u>L22</u>	dynamic\$4 near5 simulat\$6 near5 thread	0	<u>L22</u>	
<u>L21</u>	dynamically near5 simulat\$4 thread	0	<u>L21</u>	
<u>L20</u>	creat\$4 near5 dynamically near5 simulat\$4 thread	0	<u>L20</u>	
DB=U	SPT,PGPB; PLUR=YES; OP=ADJ			
<u>L19</u>	(5410698  5691973  5790790  5793415  5809145  5809248  5835724  5872963  5918228  5928323  5961584  5991792  6012090  6052711  6058460  6112196  6182109  6418458)![pn]	18	<u>L19</u>	
DB=U	SPT; PLUR=YES; OP=ADJ			
<u>L18</u>	115 same server	2	<u>L18</u>	
<u>L17</u>	L16 same server	0	<u>L17</u>	
<u>L16</u>	(multiple or plurality) near3 thread near5 (state information or suspend\$3 or interrupt\$3)	160	<u>L16</u> .	
<u>L15</u>	plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	222	<u>L15</u>	
<u>L14</u>	simulat\$6 same plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	0	<u>L14</u>	
<u>L13</u>	simulat\$6 near5 plurality near5 thread same (state information or suspend\$3 or interrupt\$3)	0	<u>L13</u>	
<u>L12</u>	maintain\$3 near5 state near5 thread near5 (suspend\$3 or interrup\$3)	1	<u>L12</u>	
<u>L11</u>	L10 same 13	0	<u>L11</u>	
<u>L10</u>	maintain\$3 same thread same (suspend\$3 or interrup\$3)	446	<u>L10</u>	
<u>L9</u>	13 same state information	3	<u>L9</u>	
<u>L8</u>	wafl	22	<u>L8</u>	
<u>L7</u>	wafl file near5 thread	0	<u>L7</u>	
<u>L6</u>	L4 and 13	2	<u>L6</u>	
<u>L5</u>	L4 same 13	0	<u>L5</u>	
<u>L4</u>	maintain\$3 near5 state information	691	<u>L4</u>	
<u>L3</u>	simulat\$6 near5 thread	216	<u>L3</u>	
<u>L2</u>	L1 and simulat\$6 near5 thread	0	<u>L2</u>	
<u>L1</u>	4742447	77	<u>L1</u>	

## END OF SEARCH HISTORY



L28: Entry 8 of 9

File: USPT

Sep 22, 1998

US-PAT-NO: 5812844

DOCUMENT-IDENTIFIER: US 5812844 A

TITLE: Method and system for scheduling the execution of threads using optional

time-specific scheduling constraints

DATE-ISSUED: September 22, 1998

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Jones; Michael B.	Redmond	WA			
Leach; Paul J.	Seattle	WA			
Draves, Jr.; Richard P.	Seattle	WA			
Barrera, III; Joseph S.	Belmont	CA			
Levi; Steven P.	Redmond	WA			
Rashid; Richard F.	Woodinville	WA			
Fitzgerald; Robert P.	Redmond	WA			

US-CL-CURRENT: 709/104; 709/100, 709/102

#### ABSTRACT:

A method and system for scheduling the execution of threads using optional time-specific constraints is provided. In a preferred embodiment, a scheduler schedules the execution of a plurality of threads each specifying either a percentage processor time scheduling constraint, indicating that a certain percentage of processor time should be dedicated to the execution of the thread, or a deadline scheduling constraint, indicating that a specified quantity of work should be done by the thread by a specified time deadline. For each thread specifying a percentage processor time scheduling constraint, the scheduler determines a restart time corresponding to the percentage processor time scheduling constraint. For each thread specifying a deadline scheduling constraint, the scheduler determines a restart time corresponding to the deadline scheduling constraint. The scheduler then utilizes the determined restart times for scheduling the threads by selecting the thread having the earliest restart time for execution.

22 Claims, 33 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 33 L28: Entry 6 of 9

File: USPT

May 11, 1999

US-PAT-NO: 5903752

DOCUMENT-IDENTIFIER: US 5903752 A

TITLE: Method and apparatus for embedding a real-time multi-tasking kernel in a

non-real-time operating system

DATE-ISSUED: May 11, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Dingwall; Thomas J. Portland OR Kumar; Narasimha Portland OR

US-CL-CURRENT: 709/103; 709/102, 709/321

#### ABSTRACT:

An improved method and apparatus for embedding a real-time multi-tasking kernel in a non-real-time operating system is disclosed. Through encapsulating a real-time kernel into the interrupt handling environment of a non-real-time operating system, such as Windows.RTM., the method of the present invention allows for an entire real-time environment to be supported within the operating system. The scheduler of the real-time kernel supports multiple threads of execution all running at higher priority than the application tasks. By using synchronization mechanisms of the operating system, e.g. VxD events in enhanced mode Windows.RTM., the real-time tasks are able to make use of system services of the operating system. Real-time tasks not requiring system services execute more quickly from interrupt mode. Real-time tasks requiring system services execute partially from interrupt mode and partially from event mode.

14 Claims, 9 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

# WEST Generate Collection

L27: Entry 2 of 73

File: USPT

Jan 7, 2003

US-PAT-NO: 6505250

DOCUMENT-IDENTIFIER: US 6505250 B2

TITLE: Apparatus and method for scheduling and dispatching queued client requests

within a server in a client/server computer system

DATE-ISSUED: January 7, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Freund; Thomas Winchester GB Houston; Iain Stuart Caldwell Sherborne GB

US-CL-CURRENT: 709/226

#### ABSTRACT:

An apparatus for scheduling and dispatching client requests for execution by a server object in a heterogeneous object-oriented client/server computing environment, the apparatus comprising: a request-holding buffer having an input connected to a communications channel which channels the client requests to the apparatus, and an output; a plurality of parallel execution threads connected to the output of the buffer; and a scheduling means for distributing client requests stored in the buffer to the plurality of execution threads, characterized in that: the scheduling means places client requests held in the buffer in priority order based on a priority determining rule which takes into account the state of the plurality of execution threads and the nature of each of the held requests.

12 Claims, 6 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 3

## WEST

# Freeform Search

Database:	US Patents Full-Text Database US Pre-Grant Publication Full-Text Database JPO Abstracts Database EPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins
Term:	<b>▲</b>
Display:	Documents in Display Format: TI Starting with Number 1
Generate:	○ Hit List ● Hit Count ○ Side by Side ○ Image
	Search Clear Help Logout Interrupt
	Main Menu Show S Numbers Edit S Numbers Preferences Cases

**Search History** 

DATE: Saturday, April 19, 2003 Printable Copy Create Case